

1. An article, comprising:
a substrate in the form of a tape; and
an optical recording material disposed over the substrate.
2. The article of claim 1, wherein the substrate has a thickness of less than about one millimeter.
3. The article of claim 1, wherein the article comprises a flexible article.
4. The article of claim 1, wherein the article has an aspect ratio of at least about 1.5.
5. The article of claim 1, wherein the substrate comprises a polymer.
6. The article of claim 5, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.
7. The article of claim 1, wherein the optical recording material comprises an optical phase change material.
8. The article of claim 7, wherein the optical recording material comprises germanium, antimony, tellurium and combinations thereof.
9. The article of claim 1, wherein the optical recording material comprises a magneto-optic material.
10. The article of claim 9, wherein the magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.
11. The article of claim 1, further comprising a reflective material between the substrate and the optical recording material.

12. The article of claim 1, further comprising a reel, wherein the substrate and the optical recording material form a tape that is at least partially wound around the reel.
13. An article, comprising:
a substrate having a thickness of less than about one millimeter; and
an optical recording material disposed over by the substrate.
14. The article of claim 13, wherein the thickness of the substrate is less than about 500 microns.
15. The article of claim 13, wherein the thickness of the substrate is less than about 100 microns.
16. The article of claim 13, wherein the thickness of the substrate is less than about 50 microns.
17. The article of claim 13, wherein the thickness of the substrate is less than about 10 microns.
18. The article of claim 13, wherein the thickness of the substrate is from about 2 microns to about 8 microns.
19. The article of claim 13, wherein the thickness of the substrate is from about 4 microns to about 6 microns.
20. The article of claim 13, wherein the article comprises a flexible article.
21. The article of claim 13, wherein the article has an aspect ratio of at least about 1.5.
22. The article of claim 13, wherein the substrate comprises a polymer.

23. The article of claim 22, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.

24. The article of claim 13, wherein the optical recording material comprises an optical phase change material.

25. The article of claim 24, wherein the optical phase change material comprises germanium, antimony, tellurium and combinations thereof.

26. The article of claim 13, wherein the optical recording material comprises a magneto-optic material.

27. The article of claim 26, wherein the magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.

28. The article of claim 13, further comprising a reflective material between the substrate and the optical recording material.

29. The article of claim 13, further comprising a reel, wherein the substrate and the optical recording material form a tape that is at least partially wound around the reel.

30. An article, comprising:
a substrate; and
an optical recording material disposed over the substrate,
wherein the article is flexible.

31. The article of claim 30, wherein the article is flexible enough to be wound around a reel having a diameter of less than about 10 inches without substantial cracking of the article.

32. The article of claim 30, wherein the article is flexible enough to be wound around a reel having a diameter of less than about 5 inches without substantial cracking of the article.

33. The article of claim 30, wherein the article is flexible enough to be wound around a reel having a diameter of less than about 3 inches without substantial cracking of the article.

34. The article of claim 30, wherein the article is flexible enough to be wound around a reel having a diameter of less than about one inch without substantial cracking of the article.

35. The article of claim 30, wherein the article has an aspect ratio of at least about 1.5.

36. The article of claim 30, wherein the substrate comprises a polymer.

37. The article of claim 36, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.

38. The article of claim 30, wherein the optical recording material comprises an optical phase change material.

39. The article of claim 38, wherein the optical phase change material comprises germanium, antimony, tellurium and combinations thereof.

40. The article of claim 30, wherein the optical recording material comprises a magneto-optic material.

41. The article of claim 40, wherein the magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.

42. The article of claim 30, further comprising a reflective material between the substrate and the optical recording material.
43. The article of claim 30, further comprising a reel, wherein the substrate and the optical recording material form a tape that is at least partially wound around the reel.
44. An article, comprising:
a substrate;
an optical recording material; and
a reflective material between the substrate and the optical recording material.
45. The article of claim 44, wherein the substrate comprises a polymer.
46. The article of claim 45, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.
47. The article of claim 44, wherein the optical recording material comprises an optical phase change material.
48. The article of claim 47, wherein the optical phase change material comprises germanium, antimony, tellurium and combinations thereof.
49. The article of claim 44, wherein the optical recording material comprises a magneto-optic material.
50. The article of claim 49, wherein the magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.
51. The article of claim 44, wherein the reflective layer comprises aluminum.

52. The article of claim 51, wherein the reflective layer further comprises titanium.
53. An article, comprising:
a substrate; and
a sputter deposited optical recording material disposed over the substrate.
54. The article of claim 53, wherein the article is in the shape of a tape.
55. The article of claim 53, wherein the article comprises a flexible article.
56. The article of claim 53, wherein the substrate has a thickness of less than about one millimeter.
57. The article of claim 53, wherein the article has an aspect ratio of at least about 1.5.
58. The article of claim 53, wherein the substrate comprises a polymer.
59. The article of claim 58, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.
60. The article of claim 53, wherein the sputter deposited optical recording material comprises a sputter deposited optical phase change material.
61. The article of claim 60, wherein the sputter deposited optical phase change material comprises germanium, antimony, tellurium and combinations thereof.
62. The article of claim 53, wherein the sputter deposited optical recording material comprises a sputter deposited magneto-optic material.

63. The article of claim 62, wherein the sputter deposited magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.
64. The article of claim 53, further comprising a reflective material between the substrate and the sputter deposited optical recording material.
65. The article of claim 53, further comprising a reel, wherein the substrate and the sputter deposited optical recording material form a tape that is at least partially wound around the reel.
66. A system, comprising:
a first reel;
a second reel; and
a tape, comprising:
a substrate; and
an optical recording material,
wherein the tape is at least partially wound around at least one reel selected from the group consisting of the first reel and the second reel.
67. The system of claim 66, further comprising an energy source capable of writing information on the tape or erasing information from the tape.
68. The system of claim 67, further comprising a sensor capable of reading information from the tape.
69. The system of claim 66, further comprising a sensor capable of reading information from the tape.
70. The system of claim 66, wherein the substrate has a thickness of less than about one millimeter.

71. The system of claim 66, wherein the article comprises a flexible article.
72. The system of claim 66, wherein the article has an aspect ratio of at least about 1.5.
73. The system of claim 66, wherein the substrate comprises a polymer.
74. The system of claim 73, wherein the polymer is selected from the group consisting of polyethylenenaphthalates, polyimides, polyaramids and combinations thereof.
75. The system of claim 66, wherein the optical recording material comprises an optical phase change material.
76. The system of claim 75, wherein the optical phase change material comprises germanium, antimony, tellurium and combinations thereof.
77. The system of claim 66, wherein the optical recording material comprises a magneto-optic material.
78. The system of claim 77, wherein the magneto-optic material comprises tellurium, iron, cobalt and combinations thereof.
79. The system of claim 66, wherein the optical recording material comprises a sputter deposited optical recording material.
80. The system of claim 66, further comprising a reflective material between the substrate and the optical recording material.
81. A method, comprising:

sputter depositing an optical recording material on an article having a substrate in the shape of a tape.

82. A method, comprising:
sputter depositing an optical recording material on an article having a flexible substrate.
83. A method, comprising:
sputter depositing an optical recording material on a substrate with a thickness of less than about one millimeter.
84. A method, comprising:
sputter depositing an optical recording material onto a reflective material, the reflective material being disposed over a substrate.
85. A method, comprising:
writing information on a tape, the tape comprising a substrate and an optical recording material disposed over the substrate.
86. The method of claim 85, wherein the information is written on the tape by heating a portion of the optical recording material.
87. The method of claim 86, wherein heating includes irradiating the tape.
88. The method of claim 85, further comprising erasing at least a portion of the information from the tape.
89. The method of claim 88, wherein the information is erased from the tape by heating a portion of the optical recording material.
90. The method of claim 88, wherein heating includes irradiating the tape.

91. A method, comprising:
erasing information from a tape, the tape comprising a substrate and an optical recording material disposed over the substrate.
92. The method of claim 91, wherein the information is erased from the tape by heating a portion of the optical recording material.
93. The method of claim 91, wherein heating includes irradiating the tape.
94. A data storage tape, comprising:
a substrate; and
a data storage layer disposed over the substrate, the data storage layer comprising an optical recording material.
95. The data storage tape of claim 94, wherein the substrate is in the form of a tape.
96. The data storage tape of claim 94, wherein the substrate has a thickness of less than about one millimeter.
97. The data storage tape of claim 94, wherein the data storage tape comprises a flexible article.
98. The data storage tape of claim 94, wherein the data storage tape has an aspect ratio of at least about 1.5.
99. The data storage tape of claim 94, wherein the optical recording material comprises an optical phase change material.
100. The data storage tape of claim 94, wherein the optical recording material comprises a magneto-optic material.